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MAY 1995 EFFLUENT VIOLATIONS - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT - NPDES PERMIT NO. 1L000004*DD

09/19/95

C:EC(RTS):95:0074
FERMCO OEPA
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LETTER

Fernald Environmental

FERMCO

Restoration Management Corporation P.O. Box 398704 Cincinnati, Ohio 45239-8704 (513) 738-6200

7186

September 19, 1995

Fernald Environmental Management Project
Letter No. C:EC(RTS):95-0074

Mr. Jay Richie
Ohio Environmental Protection Agency
Southwest District Office
401 East Fifth Street
Dayton, Ohio 45402-2911

Dear Mr. Richie

MAY 1995 EFFLUENT VIOLATIONS - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT - NPDES PERMIT NO. 1IO00004*DD

FEMP has reviewed your September 12, 1995 letter requiring an explanation and statement of corrective actions for the effluent violations reported in our May 1995 Discharge Monitoring report. The pH violations referenced in your letter are all related to the discharge of high pH wastewater from the General Sump to Manhole 175 where the violations occurred. Prior to September 7, 1994 pH was controlled at the General Sump by the manual addition of sulfuric acid to the General Sump "River Tank" before discharge to Manhole 175. Due to safety concerns with this practice, the manual acid addition was elimination. Because of the reduction in flow at Manhole 175 due to many wastewater streams discharging to Manhole 176B, lack of pH control at the General Sump resulted in pH excursions at Manhole 175. As you are aware, the practice of discharging General Sump effluent to Manhole 175 was stopped on September 7, 1994 in favor of discharging General Sump effluent to the Bio-Surge Lagoon for pH control through the biodenitrification process. OEPA was informed of this change verbally on September 14, 1994 and again per Letter No. C:RP:(RTS):94-0103, dated October 10, 1994.

During the month of May 1995 significant inventories of wastewater were accumulated in the Bio-Surge Lagoon, primarily from stormwater sources such as the Waste Pit Area Perimeter Stormwater Collection Sump and the Clearwell. On May 18, 1995 a storm event measuring 3.33 inches of rain occurred (see attached FERMCO Climatological Data). Due to accumulation of stormwater from this event, coupled with the limited capability to pump the Bio-Surge Lagoon to the Advanced Wastewater Treatment facility (AWWT), the Bio-Surge Lagoon became in jeopardy of overflowing. Overflowing the lagoon has very serious implications, including compromising the integrity of the BSL berm and liner.

To prevent this overflow , the decision was made to eliminate all sources of wastewater into the lagoon until the threat of overflowing the lagoon was reduced. Beginning May 18, 1995, the river tanks at the General Sump (containing wastewater found to have acceptable uranium

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concentrations for discharge based on past practice) were pumped to Manhole 175, rather than the to Bio-Surge Lagoon as had been the practice since September 7, 1994. In several telephone conversations on May 18 and 19, 1995, FEMP discussed the potential impacts of the storm, and our intent to eliminate flows into the Bio-Surge Lagoon and, if necessary, pump the river tanks to Manhole 175, with you and other representatives of OEPA.

As was discussed in the FEMP's June 14, 1995 Noncompliance Report, no adverse impact on water quality occurred as a result of these pH violations. Wastewater monitored at Manhole 175 now combines with approximately 2,000 gpm of groundwater and AWWT effluent at new Manhole 176B prior to discharge to the Great Miami River. This combination of waste streams reduced the pH to compliant levels based upon continuous pH monitoring at the new parshall flume building downstream of Manhole 176B. The parshall flume is now the final monitoring point of all FEMP wastewater discharges to the Great Miami River. The parshall flume is also the proposed 001 monitoring location in our NPDES Permit Renewal Application dated July 12, 1994 (pending OEPA action). At no time during the month of May did the pH at the parshall flume building exceed 9.0.

In response to these violations, the location where pH is monitored and reported has been moved from Manhole 175 to the new parshall building. Frank Johnston of my staff discussed this relocation with you on June 26, 1995 and received your written concurrence on June 30, 1995 (attached).

The daily maximum violations for fecal coliform at the sewage treatment plant (STP) are a result of temporarily losing disinfection capability. The FEMP ultraviolet (UV) disinfection system consists of three banks of six ultraviolet bulbs each. Apparently a UV bulb blew out causing an electrical short eliminating an entire bank of UV bulbs. New bulbs were ordered and all bulbs were replaced on May 10, 1995. Fecal coliform readings subsequent to May 9, 1995 have all been within effluent limitations. No corrective actions beyond the replacement of the UV bulbs have been necessary.

Sincerely,

Stephen M. Beckman
Manager
Air and Water Programs

SMB:FLJ:mhv
Attachments

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c: J. Bartoszek, OEPA-SWDO
R. Bournique, OEPA-COLUMBUS
D. E. Faris, FERMCO
T. D. Hagen, FERMCO
L. Pennington, FERMCO
E. P. Skintik, DOE-FN
AR Coordinator
AWP Files
File Record Storage Copy 108.13

Completed: 06/14/95
Revised: 06/14/95

FERMCO CLIMATOLOGICAL DATA
Monthly Summary: May 1995

Latitude: 39° 17' N
Longitude: 84° 41' W
Elevation: 577.1 Feet

	Temperature (°F)				Dew Point (°F)	Weather Types 1 Fog 2 Haze 3 Snow 4 Hail 5 Thunderstorm			Precipitation (in)		Pressure (in)	Wind (10 meter level) (mph)					
												Resultant	Resultant	Average	Max		Peak	
Date	Max	Min	Average	Normal	Average				Rain	Snow	Average	Direction	Speed	Speed	Speed	Direction	Gust	Direction
01	52	35	45	58	42				0.97	0.0	29.21	41	7.7	8.5	16.5	22	29.2	2
02	61	41	52	59	43				0.06	0.0	29.20	337	9.2	9.6	14.8	358	27.3	33
03	64	31	51	59	40	1			0.00	0.0	29.43	89	1.8	2.9	7.0	54	12.5	7
04	62	48	53	59	50	1			0.16	0.0	29.42	39	3.4	4.3	8.3	42	14.3	3
05	53	41	53	60	47				0.00	0.0	29.48	301	4.5	4.9	9.9	304	16.9	29
06	67	33	53	60	38				0.00	0.0	29.55	79	2.2	3.2	9.9	67	16.1	7
07	74	44	60	60	45				0.00	0.0	29.52	72	1.7	3.3	8.5	63	14.4	8
08	73	55	63	60	40				0.00	0.0	29.41	75	7.2	7.4	14.0	83	23.6	7
09	77	55	65	61	58	1			0.73	0.0	29.17	157	4.1	5.2	9.7	182	16.6	15
10	76	60	67	61	60			5	0.16	0.0	29.05	217	7.2	8.7	17.4	208	38.6	21
11	61	49	56	61	61	1			0.01	0.0	29.18	276	5.0	5.4	10.2	290	18.8	31
12	67	38	55	61	47	1			0.00	0.0	29.24	233	1.4	2.7	7.1	227	12.4	21
13	66	41	54	62	54	1			0.53	0.0	29.17	142	3.5	4.5	11.3	153	25.5	11
14	84	58	71	63	60			5	1.00	0.0	29.22	247	4.9	7.0	14.6	249	36.1	14
15	73	46	61	63	50				0.00	0.0	29.39	321	2.9	3.5	8.9	338	14.0	34
16	72	41	58	63	54	1		5	0.63	0.0	29.26	178	2.3	3.6	10.2	180	16.5	16
17	73	59	66	63	64	1		5	0.22	0.0	29.06	236	3.9	5.1	10.1	234	20.7	22
18	73	50	61	64	60			5	3.33	0.0	29.00	163	1.6	7.1	16.0	176	35.9	21
19	70	46	58	64	47				0.00	0.0	29.23	342	5.4	6.3	13.3	351	24.0	
20	74	44	61	64	47				0.00	0.0	29.32	254	4.5	4.8	11.2	279	24.8	20
21	74	47	62	64	47				0.00	0.0	29.39	270	3.1	3.7	9.5	302	31.3	29
22	75	38	59	64	44				0.00	0.0	29.54	80	1.2	2.5	7.6	42	14.9	
23	82	42	66	65	54		2		0.00	0.0	29.47	197	4.0	4.7	10.5	189	20.1	1
24	84	62	74	66	64	1		5	0.48	0.0	29.41	218	6.3	7.8	13.5	236	29.6	2
25	73	60	64	66	63	1		5	0.91	0.0	29.46	2	0.8	4.7	9.7	350	16.8	
26	71	56	63	66	57				0.00	0.0	29.56	44	5.8	6.3	9.1	17	15.9	
27	75	57	65	66	58				0.02	0.0	29.46	79	5.1	5.4	8.6	80	15.2	
28	80	62	72	67	68	1		5	0.98	0.0	29.28	192	8.7	8.7	12.6	206	26.6	2
29	65	49	60	67	55	1		5	0.00	0.0	29.42	257	5.9	6.3	11.0	259	27.6	2
30	75	42	61	67	51				0.00	0.0	29.50	329	1.6	3.4	7.6	25	13.1	3
31	75	44	62	67	54				0.00	0.0	29.46	96	2.7	3.2	7.4	75	15.9	
	SUM	SUM	SUM		SUM	NUMBER OF DAYS:			TOTAL	TOTAL	AVG				FOR THE MONTH:			
	2211	1474	1871		1622				10.19	0.0	29.34	254	0.4	5.3	17.4	22	38.6	2
	AVG.	AVG.	AVG.	NORM.	AVG.	Precipitation			NORM.	NORM.	MAX							
	71.3	47.5	60.4	62.9	52.3	≥ 0.01 in		15	4.28	T	29.63							
	MAX	MIN				Snow ≥ 1.0 in		0			MIN							
	84	31				Thunderstorms		9			28.92							
						Fog		12										

NUMBER OF DAYS: Max Temperature ≥ 90	Max Temperature ≤ 32	Min Temperature ≤ 32	Min Temperature ≤ 0
0	0	1	0

PRECIPITATION YEAR TO DATE: TOTAL	NORM
22.26	17.55

Total Hours Possible	Total Hours Aquired	Percent Data Aquired
2976	2950	99.1

Total Hours Average Win > 12.0 mph

1. T – Trace amount
2. Blank entries denote missing or unreported data.
3. Data recovery is based on the ratio of the total number of records possible less the number of invalid data records, i.e. those records with half or more fields invalidated, to the total number of records possible.
4. Resultant wind is the vector sum of wind speeds and directions divided by the number of observations.
5. NORMs and record extremes are obtained through the NWS Climatological Summaries (dtd 1994), i.e. 30 year summaries, and from the WKRC Channel 12 Tri-State Almanac & Weatherguide (dtd 1994).
6. Weather types are based upon observations taken typically between the hours of 6 am and 5 pm, Monday through Friday.

NOTES:
Ten meter wind speeds may be low due to interference of trees on winds around the Meteorological Tower.
The maximum average pressure of 29.63 inches occurred on 05/06/95 during the 10th hour.
The minimum average pressure of 28.92 inches occurred on 05/18/95 during the 8th hour.
The record high for May occurred in 1911 and 1937 at 95 °F.
The record low for May occurred in 1963 at 27 °F.
The highest recorded rainfall amount for May is 10.22 inches: measured in 1868.
The lowest recorded rainfall amount for May is 0.74 inches, measured in 1965.

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Restoration Management Corporation P.O. Box 398704 Cincinnati, Ohio 45239-8704 (513) 738-6200

June 28, 1995

Fernald Environmental Management Project
Letter No. C:EC:95-0089

RECEIVED
OHIO EPA
JUN 29 1995
SOUTHWEST DISTRICT

Mr. Jay Richie
Ohio Environmental Protection Agency
Division of Surface Water
40 S. Main Street
Dayton, Ohio 45402

Dear Mr. Richie:

REQUEST TO RELOCATE CONTINUOUS PH MONITORING LOCATION - FERNALD ENVIRONMENTAL MANAGEMENT PROJECT - NPDES PERMIT NO. 1I000004*DD

FERMCO formally requests your concurrence to relocate the continuous pH monitoring location, currently located at Manhole 175 under the existing FEMP NPDES permit (Outfall 001), to the new Parshall Flume Building. The Parshall Flume Building is now the location where all FEMP wastewater converges prior to discharge to the Great Miami River. Monitoring at the Parshall Flume is the basis for the FEMP NPDES Permit Renewal Application submitted July 12, 1994. Monitoring pH at the Flume Building is much more representative of the pH leaving the FEMP than is currently measured at Manhole 175. Frank Johnston of my staff discussed this issue with you on June 26, 1995.

We propose to continue to report the daily minimum and maximum pH readings taken at the Parshall Flume in our monthly Discharge Monitoring Reports and recognize that we remain subject to both the effluent limitation of a pH between 6.5 and 9.0 and the pH excursion reporting requirements stipulated in Part II, E of our NPDES Permit.

Please indicate your concurrence to this proposal by signing the bottom of this letter. You may FAX the signed letter to (513) 648-5263. If you have any further questions please contact Frank Johnston at (513) 648-5294.

Sincerely,

Terence D. Hagen, Director
Environmental Compliance

Concurrence: Jay A. Richie 6/30/95
Jay Richie, OEPA-SWDO Date
Division of Surface Water

TDH:FLJ:mhv

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